

## UNITED STATES DEPARTMENT OF THE INTERIOR

## FISH AND WILDLIFE SERVICE

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PACIFIC OCEANIC FISHERY INVESTIGATIONS P. O. BOX 3830, HONOLULU, T. H. ~# C/ ^# ...) ..... (C)

March 18, 1954

Air Mail



Dr. John C. Bugher
Division of Biology and Medicine
Atomic Energy Commission
Washington 25, D. C.

Dear Dr. Bugher:

In accordance with the telephonic request of Dr. Boss, I dispatched to you via Naval Communications a brief summary of our knowledge concerning Japanese fishing activities in the general vicinity of the northern Marshall Islands, as per confirmation copy enclosed. Dr. Boss also asked me to write you in further detail.

The information we have is in bits and pieces picked up from Japanese fishery trade journals, scientific reports and occasional personal contacts with Japanese scientists. All of our Japanese language material is handled by Mr. Wilvan G. Van Campen, our biologist-translator. He has been absent from this office on an official trip since late December and therefore our information is not very current and it cannot be assembled as well as if he were here. However, I have indicated on the enclosed chart the general areas of fishing on the part of the longer-range Japanese fishing vessels.

These are the only nationals which range widely for fishing in the western Pacific. There is quite a wide spread on the size of the vessels from about 100 to 350 tons; however, I doubt that the smaller ones can carry enough fuel and ice to fish as far away from Japan as the northern Warshalls.

The fishing is done by a method called longlining. The gear consists of a main line suspended from buoys at 1,000-foot intervals and extending as far as 50 miles from end to end. From the main line hook droppers are suspended and the combination of buoy line lengths, sag in the main line, and mook dropper lengths are such that the hooks are distributed through a stratum of water 100 to 400 feet below the surface. This gear is set in the morning and hauled in the evening.

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Hauling often extends past midnight. The buoys are marked with flags for daylight visibility and with lights for nighttime visibility. The vessels range widely and may fish over large areas in one trip. Trips vary two to four weeks in duration. The catch consists largely of tuna and marlin.

Dr. Boss was particularly interested in knowing whether or not this fishing was sufficiently seasonal so that the time and area could be predicted. There is a tendency for fishing to be concentrated in the vicinity of the home islands of Japan in the summer time and for the oceanic fishing to be somewhat more active at other times of the year. However the seasons are not definite enough to be used as a basis for prediction. It is particularly difficult to speak with assurance concerning the fishing in the general vicinity of the northern) Marshalls. As far as I am able to find out there was no pre-war fishing in this vicinity except for a local fishing station which the Japanese had activated on the Jaluit Atoll just a year or two prior to the war. However a year and a half ago we began to get some reports of an occasional fishing vessel fishing at about 10° North Latitude and 175° East Longitude. We have recently received published reports charting some catches in an area bounded by 8° and 10° North Latitude, and 172° East Longitude and 165° West Longitude. These reports happen to be for December and January of '52 and '53, respectively. We do not know whether fishing has been done in this area in other months of the year. From our investigations in similar latitudes farther east, there is no biological reason for this fishery being seasonal. However from what we know about the supply and demand in Japan, it is quite likely that it would be more profitable to fish this area in winter months than at other times of the year.

It is my opinion that the only sure way of ascertaining the presence or absence of fishing vessels in the general area of the northern Marshalls would be an actual patrol. Such patrol might be more effective if carried on between sunset and midnight when the lights on the ships and the lighted buoys would make them more conspicuous to air reconnaissance than they are in the daytime. In addition to actual fishing in that area, there is a further possibility of fishing vessels passing through the area in transit to other fishing grounds. The courses of such vessels might be quite varied as a result of decisions made while underway for prospecting grounds not usually fished.







I believe that this is all of the information that we have and that would be pertinent to Dr. Boss' inquiry; however, if there are further questions we would be very glad to be of service.

Sincerely yours,

. E. Sette

Director, Pacific Oceanic Fishery Investigations

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